

CLAIMS

1. A chemical entity comprising a chemical component linked to an amino acid sequence comprising a cellulose binding domain characterised in that said
5 amino acid sequence comprising a cellulose binding domain, has a binding constant for crystalline cellulose (Kr-c) of at least 10 l/gcellulose, and/or a binding constant for Avicel (Kr-av) and/or for amorphous cellulose (Kr-am) of at least 1.5 l/g cellulose.
- 10 2. A chemical entity according to claim 1 wherein said amino acid sequence comprising a cellulose binding domain has a binding constant for crystalline cellulose (Kr-c) of at least 20 l/gcellulose, and/or a binding constant for Avicel (Kr-av) and/or for amorphous cellulose (Kr-am) of at least 5 l/gcellulose.
- 15 3. A chemical entity according to claims 1-2 wherein said amino acid sequence comprising a cellulose binding domain having a binding constant for Avicel (Kr-av) and/or for amorphous cellulose (Kr-am) of at least 1.5 l/gcellulose, is selected from a fungal strain of Family I.
- 20 4. A chemical entity according to claims 1-2 wherein said amino acid sequence comprising a cellulose binding domain has a binding constant for crystalline cellulose (Kr-c) of at least 10 l/gcellulose, preferably 20l/gcellulose; and/or having a binding constant for Avicel (Kr-av) and/or for
25 amorphous cellulose (Kr-am) of at least 5 l/gcellulose, is selected from a bacterial strain of Family II, III, or IV.
- 30 5. A chemical entity according to claims 1-4 wherein said amino acid sequence comprising a cellulose binding domain is selected from : CBD family 45 from the endoglucanase derived from *Humicola insolens* DSM1800 with a molecular weight of about 43kDa, CBD E3 cellulase from *Thermomonospora fusca*, CBD Cellulozome from *Clostridium cellulovorans*, and/or mixtures thereof.

6. A chemical entity according to claims 1-5 wherein the chemical component is linked to said amino acid sequence comprising a cellulose binding domain via a linking region.
- 5 7. A chemical entity according to claim 6 wherein the linking region is a amino acid linking region.
8. A chemical entity according to claim 6 wherein the linking region is a polymer selected from PEG(NPC)₂, (NH₂)₂-PEG, t-BOC-NH-PEG-NH₂,
10 MAL-PEG-NHS and/or VS-PEG-NHS polymers.
9. A chemical entity according to any of the preceding claims wherein said chemical component is linked to said amino acid sequence comprising a cellulose binding domain or to said linking region via a weak bond.
- 15 10. A chemical entity according to any of the preceding claims wherein said chemical component is selected from perfumes, hygiene agents, insect control agents, fabric softening agents, soil release agents, bleaching agents, dye fixatives agents, brighteners, latex, resins, and/or mixtures thereof, preferably from perfumes, hygiene agents, insect control agents,
20 and/or mixtures thereof.
11. A laundry detergent and/or fabric care composition comprising a laundry detergent and/or fabric care ingredient and a chemical entity according to
25 any of the preceding claims.
12. A laundry detergent and/or fabric care composition according to claim 11 which is in the form of an additive, a pre-treatment, a post-treatment, a soaking treatment and/or a rinsing treatment composition.
- 30 13. A method of cleaning comprising the step of contacting a fabric with a chemical entity according to claims 1-10 or with a laundry detergent and/or fabric care composition according to claims 11-12 for providing fabric cleaning including soil and stain removal and/or fabric whiteness maintenance and/or fabric dye transfer inhibition.
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14. A method comprising the step of contacting a fabric with a chemical entity according to claims 1-11 or with a laundry detergent and/or fabric care composition according to claims 11-12 for providing fabric care including anti-wrinkle, anti-bobbling, anti-shrinkage properties to fabrics, fabric
5 softness, fabric freshness, color appearance and fabric anti-wear properties.
15. A method comprising the step of contacting a fabric with a chemical entity according to claims 1-10 or with a laundry detergent and/or fabric care composition according to claims 11-12 for providing sanitisation and/or
10 insect control.
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